

GrainMate Moisture Meter

GHANA

Better moisture measurement for better grain

Grain moisture content is one of the most important and critical factors affecting quality of maize during storage. Wet maize with a high moisture content promotes mold and aflatoxin growth, which is a serious health hazard in Ghana. Commercial moisture meters can cost hundreds of dollars (USD) and are not affordable for medium-scale farmers or aggregators.

To address this issue, the GrainMate moisture meter was developed by Dr. Paul Armstrong at USDA Agricultural Research Service as part of the Post-Harvest Loss Innovation Lab's Ghana research.

The low-cost PHL moisture meter uses equilibrium moisture content (EMC) and was designed and developed to be less costly and easier to use. It has now been extensively tested in Ghana and is comparable in accuracy to commercial moisture meters. With wide measurement range, the ability to measure moisture of multiple grains and legumes, and low power consumption, farmers and aggregators can have confidence in the moisture meter's ability to efficiently to measure the moisture of their grain. Proper use of the moisture meter can help reduce post-harvest losses, which can be up or even greater than 30 percent, according to assessments by in-country partner, PENS Food Bank.



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Sesi Technologies, a Ghanaian enterprise recently founded by young graduates of Kwame Nkrumah University of Science and Technology (KNUST), is selling these moisture meters for about **\$100 each**. These young entrepreneurs lowered the production cost by assembling the moisture meter in a local lab at KNUST in Kumasi, making this extremely important technological advance for maize management in Ghana even more affordable.

So far nearly 200 meters have been produced and distributed by Sesi Technologies in Ghana, with production starting to ramp up. The American Soybean Association's WISHH program, AMPLIFIES Ghana, purchased 120 meters for use in their poultry project activities. With funding from the German international development agency (GIZ) Green Innovation Center project, 50 meters are being used by the Ghana Grains Council to conduct moisture measurement training for farmers. Sesi Technologies has also demonstrated the GrainMate Moisture Meter for Ghanaian Vice President Dr. Mahamudu Bawumia and German Chancellor Angela Merkel.

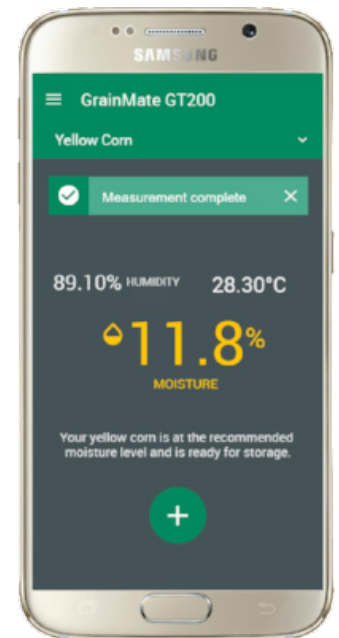


“GrainMate saved us the trouble of importing expensive grain moisture meters from overseas. We were impressed by its quality and performance.”

- Ghana Grains Council

What's next?

The newest update to the GrainMate Moisture Meter will include a smart phone app that allows users to remotely read moisture content of grains, upload settings for new grains and other useful functionalities.



Learn more or order your GrainMate:



sesitechnologies.com

ksu.edu/phl/resources/GrainMate



POST-HARVEST LOSS INNOVATION LAB

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